

## SeqListing.txt

&lt;110&gt; ImClone Systems Incorporated

<120> Fully Human Antibodies Directed Against the Human  
Insulin-Like Growth Factor-1 Receptor

&lt;130&gt; 11245/53276

&lt;140&gt; To Be Assigned

&lt;141&gt; 2004-05-03

&lt;150&gt; 60/467,177

&lt;151&gt; 2003-05-01

&lt;160&gt; 33

&lt;170&gt; Microsoft Word 97

&lt;210&gt; 1

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Human

&lt;400&gt; 1

gag gtc cag ctg gtg cag tct ggg gct gag gtg aag aag cct ggg tcc  
48Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser  
5 10 15tcg gtg aag gtc tcc tgc aag gct tct gga ggc acc ttc agc agc tat  
96Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr  
20 25 30gct atc agc tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 1  
44Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45gga ggg atc atc cct atc ttt ggt aca gca aac tac gca cag aag ttc 1  
92Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe  
50 55 60cag ggc aga gtc acg att acc gcg gac aaa tcc acg agc aca gcc tac 2  
40Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr  
65 70 75 80atg gag ctg agc agc ctg aga tct gag gac acg gcc gtg tat tac tgt 2  
88Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95gcg aga gcg cca tta cga ttt ttg gag tgg tcc acc caa gac cac tac 3  
36

Ala Arg Ala Pro Leu Arg Phe Leu Glu Trp Ser Thr Gln Asp His Tyr

## SeqListing.txt

100

105

110

tac tac tac tac atg gac gtc tgg ggc aaa ggg acc acg gtc acc gtc 3  
84

Tyr Tyr Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val  
115 120 125

tca agc 3  
90  
Ser Ser  
130

<210> 2  
<211> 130  
<212> PRT  
<213> Human

<400> 2

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser  
5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr  
20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe  
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ala Pro Leu Arg Phe Leu Glu Trp Ser Thr Gln Asp His Tyr  
100 105 110

Tyr Tyr Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val  
115 120 125

Ser Ser  
130

<210> 3  
<211> 1440  
<212> DNA  
<213> Human

## SeqListing.txt

&lt;400&gt; 3

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atg gga tgg tca tgt atc atc ctt ttt cta gta gca act gca act gga
48
Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
5 10 15

gta cat tca gag gtc cag ctg gtg cag tct ggg gct gag gtg aag aag
96
Val His Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

cct ggg tcc tcg gtg aag gtc tcc tgc aag gct tct gga ggc acc ttc 1
44
Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe
35 40 45

agc agc tat gct atc agc tgg gtg cga cag gcc cct gga caa ggg ctt 1
92
Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

gag tgg atg gga ggg atc atc cct atc ttt ggt aca gca aac tac gca 2
40
Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala
65 70 75 80

cag aag ttc cag ggc aga gtc acg att acc gcg gac aaa tcc acg agc 2
88
Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser
85 90 95

aca gcc tac atg gag ctg agc agc ctg aga tct gag gac acg gcc gtg 3
36
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
100 105 110

tat tac tgt gcg aga gcg cca tta cga ttt ttg gag tgg tcc acc caa 3
84
Tyr Tyr Cys Ala Arg Ala Pro Leu Arg Phe Leu Glu Trp Ser Thr Gln
115 120 125

gac cac tac tac tac tac tac atg gac gtc tgg ggc aaa ggg acc acg 4
32
Asp His Tyr Tyr Tyr Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr
130 135 140

gtc acc gtc tca agc gcc tcc acc aag ggc cca tcg gtc ttc ccc ctg 4
80
Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
145 150 155 160

```

## SeqListing.txt

gca ccc tcc tcc aag agc acc tct ggg ggc aca gcg gcc ctg ggc tgc 28	5
Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys 165 170 175	
ctg gtc aag gac tac ttc ccc gaa ccg gtg acg gtg tcg tgg aac tca 76	5
Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser 180 185 190	
ggc gcc ctg acc agc ggc gtg cac acc ttc ccg gct gtc cta cag tcc 24	6
Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser 195 200 205	
tca gga ctc tac tcc ctc agc agc gtg gtg acc gtg ccc tcc agc agc 72	6
Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser 210 215 220	
ttg ggc acc cag acc tac atc tgc aac gtg aat cac aag ccc agc aac 20	7
Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn 225 230 235 240	
acc aag gtg gac aag aaa gtt gag ccc aaa tct tgt gac aaa act cac 68	7
Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His 245 250 255	
aca tgc cca ccg tgc cca gca cct gaa ctc ctg ggg gga ccg tca gtc 16	8
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val 260 265 270	
ttc ctc ttc ccc cca aaa ccc aag gac acc ctc atg atc tcc cgg acc 64	8
Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr 275 280 285	
cct gag gtc aca tgc gtg gtg gtg gac gtg agc cac gaa gac cct gag 12	9
Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu 290 295 300	
gtc aag ttc aac tgg tac gtg gac ggc gtg gag gtg cat aat gcc aag 60	9
Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys 305 310 315 320	
aca aag ccg cgg gag gag cag tac aac agc acg tac cgg gtg gtc agc 08	10

## SeqListing.txt

```

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
325 330 335

gtc ctc acc gtc ctg cac cag gac tgg ctg aat ggc aag gag tac aag 10
56
Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
340 345 350

tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc atc gag aaa acc atc 11
04
Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
355 360 365

tcc aaa gcc aaa ggg cag ccc cga gaa cca cag gtg tac acc ctg ccc 11
52
Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
370 375 380

cca tcc cgg gag gag atg acc aag aac cag gtc agc ctg acc tgc ctg 12
00
Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
385 390 395 400

gtc aaa ggc ttc tat ccc agc gac atc gcc gtg gag tgg gag agc aat 12
48
Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
405 410 415

ggg cag ccg gag aac aac tac aag acc acg cct ccc gtg ctg gac tcc 12
96
Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
420 425 430

gac ggc tcc ttc ttc ctc tac agc aag ctc acc gtg gac aag agc agg 13
44
Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
435 440 445

tgg cag cag ggg aac gtc ttc tca tgc tcc gtg atg cat gag gct ctg 13
92
Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
450 455 460

cac aac cac tac acg cag aag agc ctc tcc ctg tct ccg ggt aaa tga 14
40
His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475 479

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<210> 4  
 <211> 479  
 <212> PRT

## SeqListing.txt

&lt;213&gt; Human

&lt;400&gt; 4

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Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
      5                      10                      15
Val His Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
      20                      25                      30
Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe
      35                      40                      45
Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
      50                      55                      60
Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala
      65                      70                      75                      80
Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser
      85                      90                      95
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
      100                     105                     110
Tyr Tyr Cys Ala Arg Ala Pro Leu Arg Phe Leu Glu Trp Ser Thr Gln
      115                     120                     125
Asp His Tyr Tyr Tyr Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr
      130                     135                     140
Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
      145                     150                     155                     160
Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
      165                     170                     175
Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
      180                     185                     190
Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
      195                     200                     205
Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
      210                     215                     220
Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
      225                     230                     235                     240
Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
      245                     250                     255

```

## SeqListing.txt

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val  
 260 265 270  
 Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr  
 275 280 285  
 Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu  
 290 295 300  
 Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys  
 305 310 315 320  
 Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser  
 325 330 335  
 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys  
 340 345 350  
 Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile  
 355 360 365  
 Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro  
 370 375 380  
 Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu  
 385 390 395 400  
 Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn  
 405 410 415  
 Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser  
 420 425 430  
 Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg  
 435 440 445  
 Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu  
 450 455 460  
 His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys  
 465 470 475 479

<210> 5  
 <211> 327  
 <212> DNA  
 <213> Human

<400> 5

tct tct gag ctg act cag gac cct gct gtg tct gtg gcc ttg gga cag  
 48

## SeqListing.txt

```

Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
      5                      10                      15
aca gtc agg atc aca tgc caa gga gac agc ctc aga agc tat tat gca
96
Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
      20                      25                      30
agc tgg tac cag cag aag cca gga cag gcc cct gta ctt gtc atc tat    1
44
Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr
      35                      40                      45
ggt aaa aac aac cgg ccc tca ggg atc cca gac cga ttc tct ggc tcc    1
92
Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
      50                      55                      60
agc tca gga aac aca gct tcc ttg acc atc act ggg gct cag gcg gaa    2
40
Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
      65                      70                      75                      80
gat gag gct gac tat tac tgt aac tcc cgg gac aac agt gat aac cgt    2
88
Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Asn Ser Asp Asn Arg
      85                      90                      95
ctg ata ttt ggc ggc ggg acc aag ctg acc gtc ctc agt    3
27
Leu Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ser
      100                      105                      109

```

&lt;210&gt; 6

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 6

```

Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
      5                      10                      15
Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
      20                      25                      30
Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr
      35                      40                      45
Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
      50                      55                      60

```



## SeqListing.txt

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu  
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Asn Ser Asp Asn Arg  
85 90 95

Leu Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ser  
100 105 109

<210> 7

<211> 702

<212> DNA

<213> Human

<400> 7

atg gga tgg tca tgt atc atc ctt ttt cta gta gca act gca act gga  
48

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly  
5 10 15

gta cat tca tct tct gag ctg act cag gac cct gct gtg tct gtg gcc  
96

Val His Ser Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala  
20 25 30

ttg gga cag aca gtc agg atc aca tgc caa gga gac agc ctc aga agc 1  
44

Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser  
35 40 45

tat tat gca agc tgg tac cag cag aag cca gga cag gcc cct gta ctt 1  
92

Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu  
50 55 60

gtc atc tat ggt aaa aac aac cgg ccc tca ggg atc cca gac cga ttc 2  
40

Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe  
65 70 75 80

tct ggc tcc agc tca gga aac aca gct tcc ttg acc atc act ggg gct 2  
88

Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala  
85 90 95

cag gcg gaa gat gag gct gac tat tac tgt aac tcc cgg gac aac agt 3  
36

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Asn Ser  
100 105 110

## SeqListing.txt

```

gat aac cgt ctg ata ttt ggc ggc ggg acc aag ctg acc gtc ctc agt   3
84
Asp Asn Arg Leu Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ser
    115                120                125

cag ccc aag gct gcc ccc tcg gtc act ctg ttc ccg ccc tcc tct gag   4
32
Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
    130                135                140

gag ctt caa gcc aac aag gcc aca ctg gtg tgt ctc ata agt gac ttc   4
80
Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
145                150                155                160

tac ccg gga gcc gtg aca gtg gcc tgg aag gca gat agc agc ccc gtc   5
28
Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
                165                170                175

aag gcg gga gtg gag acc acc aca ccc tcc aaa caa agc aac aac aag   5
76
Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
                180                185                190

tac gcg gcc agc agc tat ctg agc ctg acg cct gag cag tgg aag tcc   6
24
Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
    195                200                205

cac aga agc tac agc tgc cag gtc acg cat gaa ggg agc acc gtg gag   6
72
His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
    210                215                220

aag aca gtg gcc cct gca gaa tgc tct tga   7
02
Lys Thr Val Ala Pro Ala Glu Cys Ser
225                230                233

<210> 8
<211> 233
<212> PRT
<213> Human

<400> 8
Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
          5                10                15

```

## SeqListing.txt

Val His Ser Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala  
                   20                  25                  30  
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser  
                   35                  40                  45  
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu  
           50                  55                  60  
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe  
   65                  70                  75                  80  
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala  
                   85                  90                  95  
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Asn Ser  
                   100                  105                  110  
 Asp Asn Arg Leu Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ser  
           115                  120                  125  
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu  
   130                  135                  140  
 Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe  
   145                  150                  155                  160  
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val  
                   165                  170                  175  
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys  
           180                  185                  190  
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser  
           195                  200                  205  
 His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu  
   210                  215                  220  
 Lys Thr Val Ala Pro Ala Glu Cys Ser  
   225                  230                  233

&lt;210&gt; 9

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Human

&lt;400&gt; 9

tct tct gag ctg act cag gac cct gct gtg tct gtg gcc ttg gga cag  
 48

## SeqListing.txt

```

Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
      5                      10                      15
aca gtc agg atc aca tgc caa gga gac agc ctc aga agc tat tat gca
96
Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
      20                      25                      30
acc tgg tac cag cag aag cca gga cag gcc cct att ctt gtc atc tat   1
44
Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu Val Ile Tyr
      35                      40                      45
ggt gaa aat aag cgg ccc tca ggg atc cca gac cga ttc tct ggc tcc   1
92
Gly Glu Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
      50                      55                      60
agc tca gga aac aca gct tcc ttg acc atc act ggg gct cag gca gaa   2
40
Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
      65                      70                      75                      80
gat gag gct gac tac tat tgt aaa tct cgg gat ggc agt ggt caa cat   2
88
Asp Glu Ala Asp Tyr Tyr Cys Lys Ser Arg Asp Gly Ser Gly Gln His
      85                      90                      95
ctg gtg ttc ggc gga ggg acc aag ctg acc gtc cta ggt   3
27
Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
      100                      105                      109

```

&lt;210&gt; 10

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 10

```

Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
      5                      10                      15
Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
      20                      25                      30
Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu Val Ile Tyr
      35                      40                      45
Gly Glu Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
      50                      55                      60

```

## SeqListing.txt

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu  
 65 70 75 80  
 Asp Glu Ala Asp Tyr Tyr Cys Lys Ser Arg Asp Gly Ser Gly Gln His  
 85 90 95  
 Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly  
 100 105 109

<210> 11  
 <211> 702  
 <212> DNA  
 <213> Human

<400> 11

atg gga tgg tca tgt atc atc ctt ttt cta gta gca act gca act gga  
 48  
 Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly  
 5 10 15  
 gta cat tca tct tct gag ctg act cag gac cct gct gtg tct gtg gcc  
 96  
 Val His Ser Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala  
 20 25 30  
 ttg gga cag aca gtc agg atc aca tgc caa gga gac agc ctc aga agc 1  
 44  
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser  
 35 40 45  
 tat tat gca acc tgg tac cag cag aag cca gga cag gcc cct att ctt 1  
 92  
 Tyr Tyr Ala Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu  
 50 55 60  
 gtc atc tat ggt gaa aat aag cgg ccc tca ggg atc cca gac cga ttc 2  
 40  
 Val Ile Tyr Gly Glu Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe  
 65 70 75 80  
 tct ggc tcc agc tca gga aac aca gct tcc ttg acc atc act ggg gct 2  
 88  
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala  
 85 90 95  
 cag gca gaa gat gag gct gac tac tat tgt aaa tct cgg gat ggc agt 3  
 36  
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Lys Ser Arg Asp Gly Ser  
 100 105 110

## SeqListing.txt

```

ggt caa cat ctg gtg ttc ggc gga ggg acc aag ctg acc gtc cta ggt 3
84
Gly Gln His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
115 120 125

cag ccc aag gct gcc ccc tcg gtc act ctg ttc ccg ccc tcc tct gag 4
32
Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
130 135 140

gag ctt caa gcc aac aag gcc aca ctg gtg tgt ctc ata agt gac ttc 4
80
Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
145 150 155 160

tac ccg gga gcc gtg aca gtg gcc tgg aag gca gat agc agc ccc gtc 5
28
Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
165 170 175

aag gcg gga gtg gag acc acc aca ccc tcc aaa caa agc aac aac aag 5
76
Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
180 185 190

tac gcg gcc agc agc tat ctg agc ctg acg cct gag cag tgg aag tcc 6
24
Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
195 200 205

cac aga agc tac agc tgc cag gtc acg cat gaa ggg agc acc gtg gag 6
72
His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
210 215 220

aag aca gtg gcc cct gca gaa tgc tct tga 7
02
Lys Thr Val Ala Pro Ala Glu Cys Ser
225 230 233

<210> 12
<211> 233
<212> PRT
<213> Human

<400> 12
Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
5 10 15

```

## SeqListing.txt

Val His Ser Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala  
                   20                                  25                                  30  
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser  
                   35                                  40                                  45  
 Tyr Tyr Ala Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu  
                   50                                  55                                  60  
 Val Ile Tyr Gly Glu Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe  
                   65                                  70                                  75                                  80  
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala  
                   85                                  90                                  95  
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Lys Ser Arg Asp Gly Ser  
                   100                                  105                                  110  
 Gly Gln His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly  
                   115                                  120                                  125  
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu  
                   130                                  135                                  140  
 Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe  
                   145                                  150                                  155                                  160  
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val  
                   165                                  170                                  175  
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys  
                   180                                  185                                  190  
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser  
                   195                                  200                                  205  
 His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu  
                   210                                  215                                  220  
 Lys Thr Val Ala Pro Ala Glu Cys Ser  
                   225                                  230                                  233

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## SeqListing.txt

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Ser Tyr Ala Ile Ser  
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48

Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln  
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ggc  
51  
Gly  
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5 10 15

tac tac atg gac gtc

63

Tyr Tyr Met Asp Val  
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&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 18

Ala Pro Leu Arg Phe Leu Asp Trp Ser Thr Gln Asp His Tyr Tyr Tyr  
5 10 15Tyr Tyr Met Asp Val  
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&lt;210&gt; 19

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&lt;400&gt; 19

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&lt;210&gt; 20

&lt;211&gt; 11

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&lt;400&gt; 20

Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser  
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## SeqListing.txt

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&lt;210&gt; 22

&lt;211&gt; 7

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&lt;213&gt; Human

&lt;400&gt; 22

Gly Lys Asn Asn Arg Pro Ser  
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&lt;210&gt; 23

&lt;211&gt; 33

&lt;212&gt; DNA

&lt;213&gt; Human

&lt;400&gt; 23

aac tcc cgg gac aac agt gat aac cgt ctg ata

33

Asn Ser Arg Asp Asn Ser Asp Asn Arg Leu Ile  
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&lt;210&gt; 24

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 24

Asn Ser Arg Asp Asn Ser Asp Asn Arg Leu Ile  
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&lt;210&gt; 25

&lt;211&gt; 33

&lt;212&gt; DNA

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## SeqListing.txt

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&lt;211&gt; 11

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&lt;400&gt; 26

Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Thr  
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&lt;210&gt; 27

&lt;211&gt; 21

&lt;212&gt; DNA

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&lt;400&gt; 27

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&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 28

Gly Glu Asn Lys Arg Pro Ser  
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&lt;210&gt; 29

&lt;211&gt; 33

&lt;212&gt; DNA

&lt;213&gt; Human

&lt;400&gt; 29

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## SeqListing.txt

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21

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SeqListing.txt

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